

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Currently amended) A power device, comprising:
2 a semiconductor substrate of first conductivity having an upper surface and a
3 lower surface;
4 a first electrode terminal coupled to a first conductive region provided proximate
5 the upper surface of the substrate, the first electrode terminal being provided over the upper
6 surface of the substrate;
7 a second electrode terminal coupled to a second conductive region provided
8 proximate the lower surface of the substrate, the second electrode terminal being provided below
9 the lower surface of the substrate;
10 an isolation diffusion region of second conductivity provided at a periphery of the
11 substrate and extending from the upper surface to the lower surface of the substrate, the isolation
12 diffusion region having a first surface corresponding to the upper surface of the substrate and a
13 second surface corresponding to the lower surface;
14 a peripheral junction region of second conductivity formed at least partly within
15 the isolation diffusion region and formed proximate the first surface of the isolation diffusion
16 region; and
17 a passivation layer provided over the upper surface of the substrate, the first
18 surface of the isolation diffusion region, and the peripheral junction region, the passivation layer
19 comprising a polyimide layer over and an oxide layer;
20 wherein the peripheral junction region is different than the first conductive region
21 and the second conductive region^{[[s]]}, and
22 wherein the first electrode terminal and the second electrode terminal^{[[s]]} define a
23 vertical electrical current path therebetween.

1 2. (Original) The device of claim 1, wherein the peripheral junction region is a
2 P+ region and the isolation diffusion region is a P region.

1 3. (Previously presented) The device of claim 1, wherein the peripheral junction
2 region is provided to compensate the surface depletion of dopants in the isolation diffusion
3 region.

4-25. (Canceled)

1 26. (Currently amended) The device of claim 1, wherein the ~~passivation layer~~
2 ~~includes an oxide layer~~ [[and]] contacts the upper surface of the substrate, the first surface of the
3 isolation diffusion region, and the peripheral junction region.

27. (Canceled)

1 28. (Previously presented) The device of claim 1, wherein the peripheral
2 junction region is provided to compensate the surface depletion of dopants in the isolation
3 diffusion region and increase a reverse blocking voltage of the device by reducing an electric
4 field at the first surface of the isolation diffusion region.

29. (Canceled)

1 30. (Currently amended) The device of claim 1, wherein the device is a diode
2 and the first electrode terminal ~~being separated~~ is space apart from the isolation diffusion region.